

## NOTE

### Guarantee

Guarantee period: 24 months from the productions date placed inside.  
In this period if the appliance has any malfunction due to a defective component, it will be repaired or replaced by the manufacturer.  
The warranty doesn't cover the plastic box.  
The assistance will be performed at the manufacturer site.



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## ERONE DIN GUIDE 4 RELAY RECEIVER



**SEL2641R433-RBD**

## USE AND INSTALLATION MANUAL



## Remarks

### Safety measures

For a perfect functioning of the device, read carefully this manual and follow all the indications, since an inadequate use can make damages to the device.



### Declaration of Conformity:

Elpro Innatek Spa as manufacturer declares that the following appliances : SEL2641R433-RBD fullfills the requirements of the European Directives 73/23/CEE, 89/336/CEE and 99/05/CE and the Regulation EN 60950-1

## 1 - INTRODUCTION

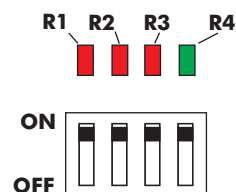
The 4 relay DIN guide receiver DIN SEL2641R433-RDB is a superheterodyne receiver with 4 clean contacts outputs. It can drive automation devices and alarm systems with max contact power of 3,5 KW. The relay contacts are NO/NC. The operating mode of the relays can be pulse or step ( with dip switch selection ) The memorization of the remote controls can be carried on in self-learning. The transmitter security codes are stored in a non-volatile memory ( EEPROM ).

## 2 - TECHNICAL SPECIFICATIONS

Receiver type.....	Superheterodyne
Carrier frequency .....	433,92 MHz
Local oscillator frequency.....	6,6128 MHz
Intermediate frequency .....	10,7 MHz
Demodulation.....	AM/ASK
Channel width .....	> 25 KHz
Input load.....	50 Ohm
Local oscillator emissions .....	< -57 dBm
Sensitivity ( for good signal ) .....	- 115 dBm
Power supply .....	12 Vac/dc
Current consumption .....	250 mA @12 Vac
.....	120 mA @12 Vdc
Output relay number .....	4
Max power on relay contacts.....	3,5 KW / 230 Vac
Security coding .....	Keeloq® Hopping code
Memory .....	85 transmitter keys
Operating temperature.....	-20°/+70°C
Enclosure IP grade .....	IP2X
Enclosure type.....	DIN 4 modules
Dimensions (mm ) .....	70 x 90 x 60
Weight .....	420 gr

## 8 - MODE PULSE/ STEP

Each relay can be set in pulse or step mode according to the set-up of the dip-switch S1 as shown on the following tab. 2. In step ( or bistable ) mode the led corresponding to the relay activated blinks.



	DIP-SWITCH S1	
	ON	OFF
RELAY1	BISTABLE	PULSE
RELAY2	BISTABLE	PULSE
RELAY3	BISTABLE	PULSE
RELAY4	BISTABLE	PULSE

Tab.2

## 9 - DISPLAY OF THE MEMORY SPACE

With the following procedure it's possible to calculate the number of transmitters memorized.

The display is carried out by the led R3 ( Red ) and R4 ( Green ).

Push P1 and verify that R1 switches on. Keep on pushed P1 until R1 switches off and then release it.

At this point starts a sequence of flashes of the 2 leds R3 ( RED ) and R4 ( GREEN )

The sequence is the binary expression of the transmitter keys memorized.

The final number can be calculated making reference to the following table:

Led on	1°	2°	3°	4°	5°	6°	7°
Green led value	1	2	4	8	16	32	64
Red led value	0	0	0	0	0	0	0

Tab.3

### Example 4:

Sequence : LR, LR, LV, LV, LR, LR, LR.

Final number: 0 + 0 + 4 + 8 + 0 + 0 + 0 = 12

Therefore in the memory are memorized 12 transmitter keys.

6.3 Memory full

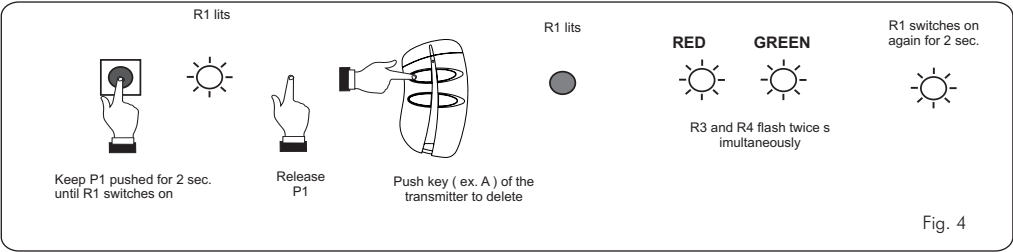
At the end of the memorization of the 85th transmitter key, R3 and R4 make a shork blinking.  
If you try to memorize more keys, R3 and R4 make 2 flashes and the memorization fails.

7 - TRANSMITTERS ERASURE

7.1 Single transmitter cancellation

Keep the push button P1 pushed for 2 sec. until R1 switches on, release and push P1 again to select the led of to the relay associated to the transmitter key to delete.  
Push the key of the transmitter to delete ( example key A ): the receiver confirms the erasure with 2 flashes of R3 ( Red ) and R4 ( Green ).  
R1 switches on again for 4 sec. ( stable or blinking according to the position of the dip-switch and then switch off definitively.  
To cancel more keys of the same transmitter ( B, C, D ) it's necessary to wait for the R1 switching off and repeat the procedure from the beginning.

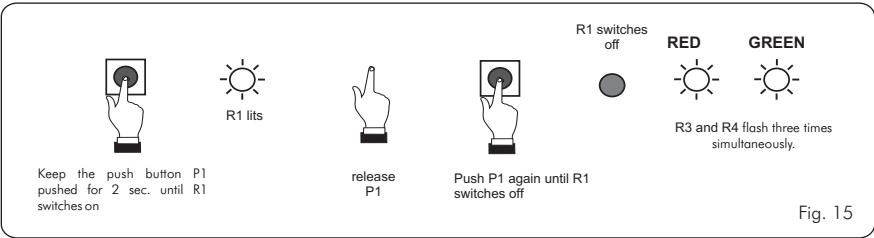
Example 3 : Erasure of the key A from relay 1



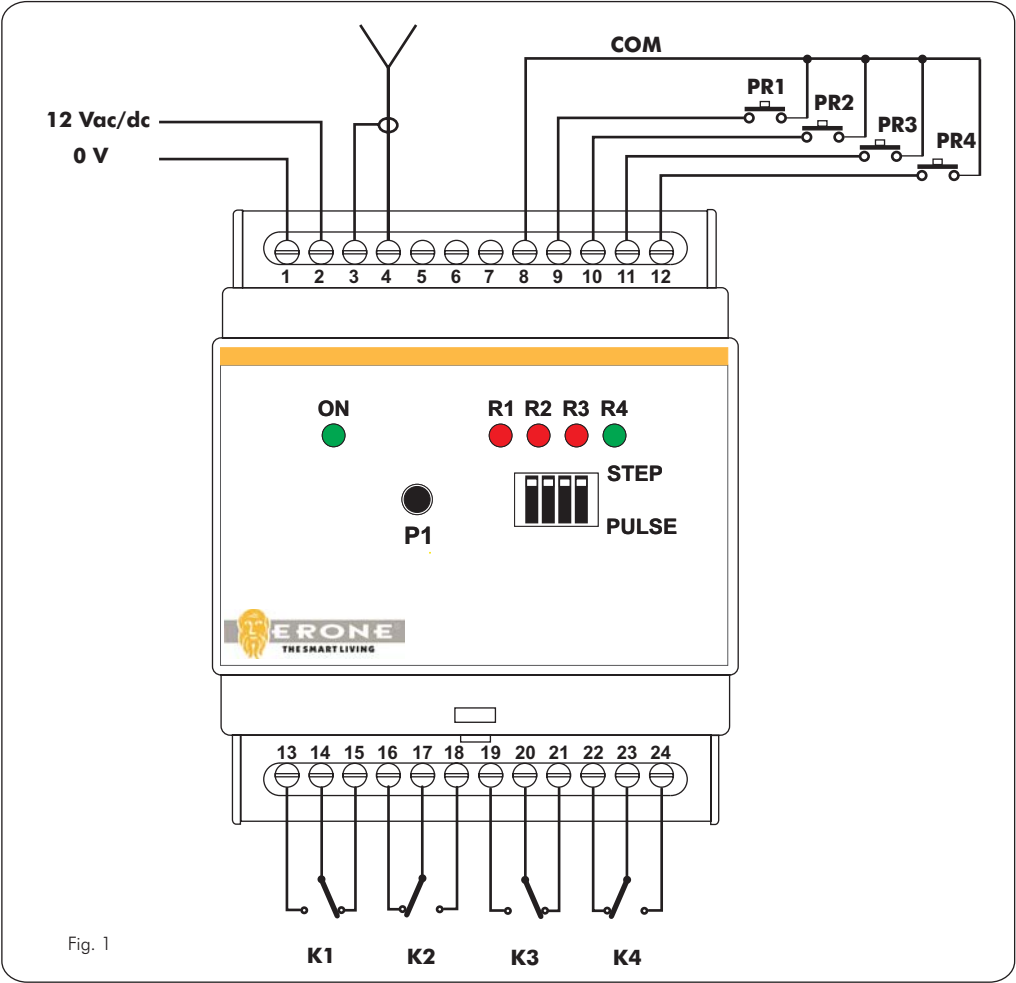
7.2 Memory full erasure

Keep the push button P1 pushed for 2 sec. until R1 switches on. Release and push P1 again until R3 and R4 flash three times simultaneously.

**ATTENTION:** At the end of the procedure all data of the memory are deleted.



3 - CONNESSIONI



Relay outputs map

Relay	Terminal	Contact	Relay	Terminal	Contact
Relay 1	13	NO	Relay 3	19	NO
Relay 1	14	C	Relay 3	20	C
Relay 1	15	NC	Relay 3	21	NC
Relay 2	16	NC	Relay 4	22	NC
Relay 2	17	C	Relay 4	23	C
Relay 2	18	NO	Relay 4	24	NO

Tab. 1

## 4 - FEATURES

- Memory for 85 transmitter keys;
- Single tx code memorization and erasure with a single push-button;
- Single tx or full memory erasing;
- Programmable operating mode for the relays : pulse or step;
- Display of the number of stored users;
- 4 inputs for emergency extra push-buttons.

## 5 - INSTALLATION

### 5.1 - Positioning

The location choice is very important for the best result of the installation.

The following conditions have to be followed:

- fix the receiver far from interference sources as informatic systems, alarm systems or other radio emissions.
- the distance between 2 receivers should be more than 1,5 m.

### ATTENTION

**1 - The power 12 Vac/Vdc must be provided by a power supplier certified according to Safety Regulations and must come from a SELV circuit, protected against short circuit.**

**2 - The appliance must be installed in an enclosure able to assure a Class I or II Safety Class against electric chock.**

**3 - The protection devices against extracurrents and short circuits must be provided by the building electric installation when the relays are inserted on the supply of appliances connected to the distribution network.**

**4 - Apply a max power of 3,5 KW / 230 Vac to the relay contacts.**  
**In case of connection of the relays to dangerous voltages, foresee a sectioning circuit to disconnect these parts.**

**5 - If there are mixed type loads ( 230V and 12 V ) connected to the relay terminals, these must be connected by interposing a null relay: example R1=230V, R2=230V, R3= empty, R4= 12V.**

### 5.2 - Antenna

- if you connect an antenna ( not provided ) fix the wire to the terminal 4 and the shield to the terminal 3;
- if you use the piece of wire ( 16,5 cm ) provided connect it to the terminal 4.

### 5.3 - Auxiliary inputs

The receiver is equipped with 4 extra inputs ( I1, I2, I3, I4 e COM ) which allow to connect 4 NO auxiliary push-buttons, for the direct activation of the relays. The push-buttons PR1, PR2, PR3, PR4 on fig. 1 ( not provided ) act on the relays like the remote controls keys, in pulse or step mode, according to the settings of dip-switch S1.

## 6 - REMOTE CONTROLS MEMORIZATION

The memorization of the remote controls can be carried on in sequential way, by using only P1.

The procedure consists in a sequence of pressures of P1

The lighting of the leds R1, R2, R3, R4 is cyclic: at each pressure of P1 a led is turned on and the preceding led is turned off. (fig. 2)

The led light is stable or blinking according to the setting of the corresponding dip-switch. ( see. cap. 8 )

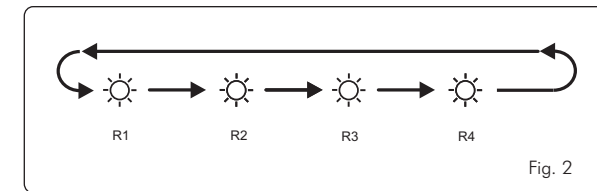


Fig. 2

### 6.1 Relay condition

The relay configuration ( pulse or step ) is displayed by the led light

**LED with stable light :**

**LED with blinking light :**

**PULSE Relay**

**BISTABLE or STEP Relay**

### 6.2 4 keys remote memorization

The memorization consists in a sequence of pressures of P1

**Example 2:** 4 keys remote memorization with the following links:

Key A --> Relay 1, Key B --> Relay 2, Key C --> Relay 3, Key D --> Relay 4.

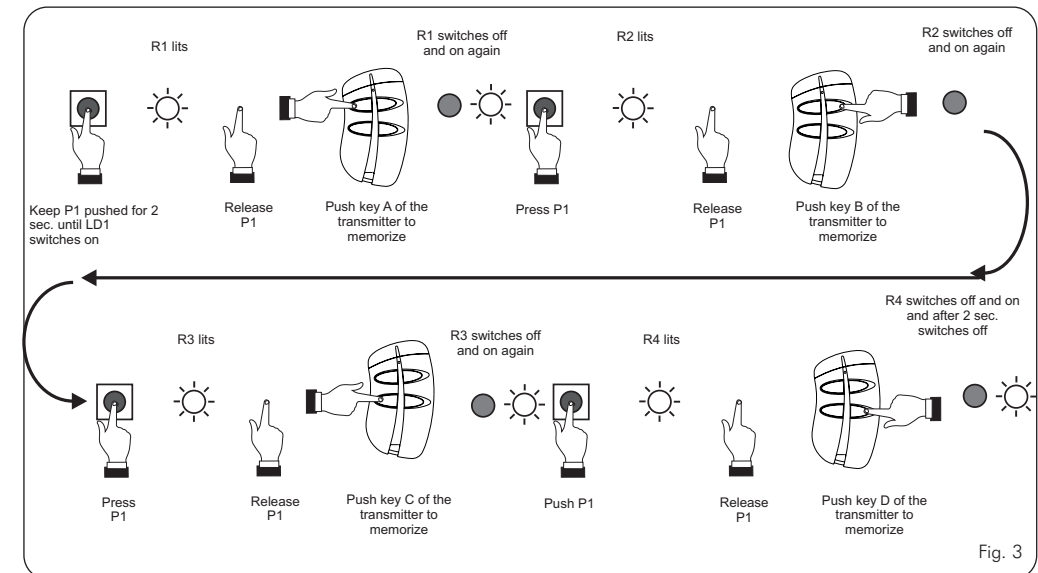


Fig. 3